Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A truncated thrombomodulin protein derivative comprising epidermal growth factor (EGF)-like domains (4-6) ~~EGF (4-6) like domains~~, a substitution of Leucine for methionine, and a GGM amino acid motif appended at a carboxy terminus of said derivative, said truncated thrombomodulin protein derivative comprising SEQ ID NO:3, wherein the leucine for methionine substitution is at amino acid position number 40 of SEQ ID NO:3.

2. (currently amended) The truncated thrombomodulin protein of claim 1 wherein said GGM protein motif is expressed as a protein motif with a non-natural amino acid corresponding to the M amino acid residue at amino acid position number 147 of SEQ ID NO:3.

3. (currently amended) A truncated thrombomodulin protein comprising the amino acid of SEQ ID NO:3.

4. (currently amended) A truncated thrombomodulin derivative conjugate comprising a truncated thrombomodulin derivative and a polymer; wherein the thrombomodulin derivative comprises EGF (4-6) like domains, a substitution of Leucine for methionine, and a GGM amino acid motif appended at a carboxy terminus of said derivative, said derivative conjugate comprising SEQ ID NO:3, wherein the leucine for methionine substitution is at amino acid position number 40 of SEQ ID NO:3.

5. (original) The conjugate of claim 4 wherein the polymer comprises polyethylene glycol.

6. (withdrawn – currently amended) A truncated thrombomodulin nucleic acid derivative comprising EGF (4-6) like domains, a substitution of Leucine for methionine at position 388, and a nucleic acid sequence capable of encoding a

Gly Gly Met motif appended at a carboxy terminus of said derivative, wherein said nucleic acid encodes the truncated thrombomodulin protein amino acid sequence of claim 3.

7. (withdrawn) The thrombomodulin nucleic acid derivative of claim 6 comprising SEQ ID NO:1.

8. (withdrawn – currently amended) A method of generating a purified truncated thrombomodulin derivative protein, wherein the protein comprises EGF (4-6) like domains, a substitution of Leucine for methionine at position 388, and a non-natural amino acid; comprising the steps of providing a truncated thrombomodulin nucleic acid sequence; recombinantly expressing said nucleic acid sequence in the presence of a non-natural amino acid precursor; and purifying a recombinant expression product; thereby generating a purified truncated thrombomodulin derivative protein, wherein the recombinant expression product comprises the amino acid sequence the truncated thrombomodulin protein of claim 3.

9. (withdrawn) The method of claim 8 wherein said nucleic acid sequence is SEQ ID NO:1.

10. (withdrawn) The method of claim 8 wherein the non-natural amino acid is selected from the group consisting of: methionine analogues, alanine analogues, phenylalanine analogues, leucine analogues, proline analogues and isoleucine analogues.

11. (withdrawn) The method of claim 10 wherein said methionine analog is L-2-amino-4-azido-butanoic acid.

12. (withdrawn) The method of claim 8 wherein the non-natural amino acid is located at a C-terminal portion of the construct.

13. (withdrawn) A method of site-specific PEGylation of a bioactive protein, comprising identifying an amino acid residue capable of alteration wherein the

alteration does not substantially impair a protein activity; altering said amino acid residue; integrating a non-natural amino acid residue into said bioactive protein at a site, and conjugating a PEG polymer to said non-natural amino acid at the site.

14. (withdrawn) The method of claim 13 wherein the bioactive protein is thrombomodulin.

15. (withdrawn) The method of claim 13 wherein the bioactive protein is a thrombomodulin derivative.

16. (currently amended) A ~~conjugate of a~~ truncated thrombomodulin protein derivative-polymer conjugate ~~thrombomodulin protein or a thrombomodulin derivative and a polymer~~, wherein said truncated thrombomodulin protein derivative ~~conjugate~~ comprises SEQ ID NO:3.

17. (currently amended) The conjugate of claim 16 wherein the polymer is polyethylene glycol ~~PEG~~.

18. (original) The conjugate of claim 16 wherein the polymer can confer a property for the conjugate selected from the group consisting of: an increase in plasma half-life, stability against proteolytic cleavage, and a decrease of protein immunogenicity, or combination thereof.

19. (original) The conjugate of claim 16 wherein the conjugate is soluble.

20. (currently amended) A truncated thrombomodulin protein derivative comprising a ~~catalytically~~ catalytic active site capable of activating protein C and a non-natural amino acid, said truncated thrombomodulin protein derivative comprising SEQ ID NO:3 and said non-natural amino acid is at the C-terminal portion of SEQ ID NO:3.

Claims 21-22 (canceled)

23. (currently amended) The truncated thrombomodulin protein derivative of claim 20 conjugated via said non-natural amino acid to a linear or branched natural or synthetic polymer.

24. (currently amended) The derivative of claim 23 wherein said linear or branched synthetic polymer is selected from the group consisting of poly(t-butyl acrylate), poly(t-butyl methacrylate), polyacrylamide, glycolipid, ~~and their mimetics; and other polymers;~~ glycoproteins ~~and their mimetics~~, poly(arginine), and polysaccharides ~~and their mimetics; and other polymers as would be understood in the art~~.

Claims 25-60 (canceled)